

IN THE CLAIMS

The status of the claims are as follows:

Claims 1-10: (Canceled).

11. (New, corresponds to Claim 5) A modified sarcosine oxidase wherein said enzyme

(a) hydrolyzes 1 mol of sarcosine to produce 1 mol of glycine and 1 mol of formaldehyde;

(b) has an optional pH of about 6.5;

(c) does not change its activity after being incubated at pH of between 6.0 and 11.0 for 5 hours at 25°C;

(d) has an optional temperature of 60°C;

(e) is stable after ten-minute heat in 50 mM potassium phosphate buffer and at pH 7.5, up to about 50°C;

(f) retains 90% of activity after 5 hours at pH 6.0 and 25°C and it retains 70% activity after 17 hours at pH 6.0 and 25°C;

(g) has a molecular weight of approximately 43,000 (SDS-PAGE); and

(h) has K_m value of 5.9 mM at pH 6.5.

12. (New, Corresponds to Claim 6) A modified sarcosine oxidase of the following

(a), or (b):

(a) a protein consisting of the amino acid sequence represented by SEQ ID NO: 1; or

(b) a protein consisting of an amino acid sequence wherein one or some amino acid(s) are deleted, substituted, or added from the amino acid sequence represented by SEQ ID NO: 1, and which has sarcosine oxidase activity.